

What is claimed is:

1. An apparatus for affixing an anti-theft device to an article of merchandise, the anti-theft device comprising a first element and a second element, the first and second elements adapted for assembly together by snap connection through the article of merchandise, the apparatus comprising:

an assembly station which includes a working surface;

- first means for storing a plurality of said first elements and for transferring stored first elements seriatim to said assembly station; and

- second means for storing a plurality of said second elements and for transferring stored second elements seriatim to said assembly station;

said assembly station further including:

- positioning means for positioning one of said first elements transferred to said assembly station by said first means at a first assembly position on said working surface;

- manipulating means for positioning one of said second elements transferred to said assembly station by said second means at a second assembly position above said first assembly position;

- sighting means for guiding an operator to position the article of merchandise at a desired location relative to said first assembly position; and

- connection means for snap connecting at said desired location said first element at said first assembly position and said second element of said second assembly position.

2. An apparatus according to claim 1, wherein:
- said first means includes first vibration means for vibrating said first means; and
- said second means includes second vibration means for vibrating said second means.

3. An apparatus according to claim 2, wherein:

said first means includes a first bowl in which said first elements are stored, said first bowl having a circular, convex bottom for positioning said first elements at the circumference of the bottom, and a flared inside wall with a first helicoidal ramp for forming a guide path for guiding said first elements from the bottom of said first bowl to an upper part of said first bowl; said first means also including a first vibrating conveyor for receiving first elements discharged from said first helicoidal ramp and transferring the first elements to the working surface; and

said second means includes a second bowl in which said second elements are stored, said second bowl having a circular, convex bottom for positioning said second elements at the circumference of the bottom, and a flared inside wall with a second helicoidal ramp for forming a guide path for guiding said second elements from the bottom of the second bowl to an upper part of said second bowl; said second means also including a second vibrating conveyor for receiving second elements discharged from said second helicoidal ramp and transferring said second elements to said manipulating means.

4. An apparatus according to claim 3, wherein:

said first helicoidal ramp includes means for preventing any item other than said first elements from ascending to the upper part of said first bowl; and

said second helicoidal ramp includes means for preventing any item other than said second elements from ascending to the upper part of said second bowl.

5. An apparatus according to claim 3, wherein said positioning means includes at least one impression formed in said working surface and having a shape complementary to a shape of the first elements to hold one of the first elements at said first assembly position, and pushing means for pushing a first element situated at a downstream end of the first conveyor into the impression.

6. An apparatus according to claim 3, wherein the manipulating means includes gripping means for gripping a second element situated at a downstream end of the second conveyor, said gripping means including a movable head
5 having a first end face which has a shape complementary to a shape of said second elements, said gripping means also including a magnet for retaining a second element at said first end face of said movable head, said manipulating means also including a piston having a shaft which is
10 integral with a second end face of said movable head, said piston also constituting said connection means.

7. An apparatus according to claim 6, wherein said manipulating means also includes a movable arm supported for horizontal movement relative to a fixed surface
15 positioned above said working surface, said gripping means being mounted on said movable arm for movement between a position directly above said downstream end of said second conveyor and said second assembly position.

8. An apparatus according to claim 3, wherein:
20 said positioning means includes a first turntable having formed therein at least one impression having a shape complementary to a shape of the first elements for receiving a first element discharged from said first conveyor means; and

25 said manipulating means includes a second turntable coaxial with said first turntable and having at least one notch for receiving a second element discharged from said second conveyor means.

9. An apparatus according to claim 3, wherein said
30 first means also includes:

a hopper for storing quantities of said first elements; and

means for dispensing first elements from said hopper to said first bowl.

35 10. An apparatus according to claim 1, wherein said sighting means includes a laser source for projecting a light beam to form a reference mark on said working surface.

11. An apparatus according to claim 1, wherein the first element is a rigid label having a recessed hole, and said second element is a pin having a pointed member adapted to be engaged by said recessed hole.

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